COMMENT. In response, Shinnar S and Chu ML emphasize that a presenting complaint of headache, even in young children, is generally associated with a benign clinical syndrome, and a neuroimaging study is not always necessary or advisable. The heavy sedation required for the MRI in this age group and risks of an adverse reaction to contrast medium with CT must be weighed against the benefits of the study. They agree with Honig PJ and Charney E (AJDC 1982; 136: 121) that headache as the sole manifestation of brain tumor is very uncommon in young children.

Headache in young children is not only a problem in evaluation but also in recognition as a significant isolated symptom. Clinical acumen and careful judgement are required in decisions, 1) to advise a neurologic consultation, and 2) to order sophisticated or invasive tests. The pediatric neurologist usually has the benefit of a pediatrician's knowledge of the child and family and his decision to seek a second opinion. Notwithstanding the relatively rare occurrence of cerebral tumor in children who present with headache, uncomplicated by some other manifestation, the pediatric neurologist's first duty is to exclude the more serious diagnoses. The value of the electro-encephalogram as an important preliminary test in the diagnosis and localization of intracranial tumors of children should not be forgotten. (Millichap JG, Backus RE et al. Neurology May 1962; 12: 329).

SEIZURE DISORDERS

TONIC CLONIC STATUS EPILEPTICUS

The phases of status epilepticus and management with anticonvulsant drugs are reviewed from the Institute of Neurology, National Hospital, Queen Square, London. In phase I, seizure activity greatly increases cerebral metabolism, but physiological mechanisms, including increased cerebral blood flow and maintenance of glucose supply to the brain, are compensatory. In phase 2, the compensatory mechanisms begin to fail. Cerebral blood flow becomes dependent on systemic blood pressure which falls due to autonomic and cardiorespiratory changes and drug treatment. The high metabolic demands of the epileptic cerebral tissue cannot be met and ischemic or metabolic damage ensues. Drug treatment, administered parenterally, is also divided into stages: 1) and 2) premonitory and early status; diazepam or other lipid-soluble, rapidly-acting, but short-duration anticonvulsant; 3) established status; phenytoin is a drug of first choice, highly effective, and long acting, often administered with diazepam. Phenobarbitone is also a drug of choice, but should not be used in a solution containing other drugs, as precipitation may occur. Numerous second-line treatment options are discussed; 4) refractory status; thiopentone is traditional in Europe; propofol, a non-barbiturate, is

widely used but its safety in children has not been established. Reasons for drug treatment failure include inadequate initial dosage and maintenance, undiscovered cause or complication, and misdiagnosis.(Shorvon S. Tonic clonic status epilepticus. J Neurol Neurosurg Psychiatry Feb 1993; 56: 125-134). (Respond: Dr Shorvon, Institute of Neurology, Queen Square, London WC1N 3BG, UK).

COMMENT. The annual incidence of new cases of tonic clonic status in the USA is estimated at 45,000 -70,000. It occurs in 10 - 25% of children with epilepsy. Mortality is 5 - 10%, and morbidity increases with the duration of the status episode. Successful treatment of this medical emergency depends on the balance of a rapid control of seizures and the avoidance of complications of therapy. (Shorvon SD. Status epilepticus: its clinical features and treatment in children and adults. Cambridge, Cambridge University Press, 1993).

Phenytoin monitoring in status epilepticus in infants and children is reported from the Service de Neuropediatrie, Hopital Saint-Vincent de Paul, Paris, and Hopital du Bocage, Dijon, France. (Richard MO et al. Epilepsia Jan/Feb 1993; 34: 144-150). A loading dose of 15 mg/kg was followed by three injections in the first 24 hours. Monitoring with nine plasma samples during the first day allowed for dosage adjustment with increased efficacy and reduced toxicity. Older children responded better than younger children who had lower plasma levels.

CARBAMAZEPINE-INDUCED ACUTE PANCREATITIS

A 5-year-old mentally retarded child who developed pancreatitis during accidental acute carbamazepine (CBZ) intoxication is reported from the Department of Pediatrics, Ohio State University, Columbus, Ohio. He presented with vomiting and lethargy, but no abdominal pain. Serum amylase and lipase levels were increased for several days, and they returned to normal on recovery. (Tsao CY, Wright FS. Acute chemical pancreatitis associated with carbamazepine intoxication. Epilepsia Jan/Feb 1993; 34: 174-176). (Reprints: Dr CY Tsao, Department of Pediatrics, Ohio State University, Children's Hospital, 700 Children's Dr, Columbus, OH 43205).

COMMENT. Among antiepileptic drugs, valproate is the most likely to be associated with pancreatitis. In a study at the Bowman Gray School of Medicine, Winston Salem, North Carolina, and the University of Virginia, Charlottesville, 14.5% of 366 physicians treating epilepsy reported a case of valproate-associated pancreatitis. Thirty nine cases were available for review from the physicians surveyed, the authors' patient population, and from the medical literature. Pancreatitis was more common in young persons (mean age 16 years) and during the early months of treatment. Three deaths were reported. Asymptomatic elevation of serum amylase was observed by 40 (11%) of the